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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,499	09/23/2003	Michael B. North Morris	10021294-1	2289
7590	08/10/2005	EXAMINER		
LYONS, MICHAEL A			ART UNIT	
2877			PAPER NUMBER	
DATE MAILED: 08/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/668,499	MORRIS, MICHAEL B. NORTH	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael A. Lyons	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 23 September 2003.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 23 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>092303</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

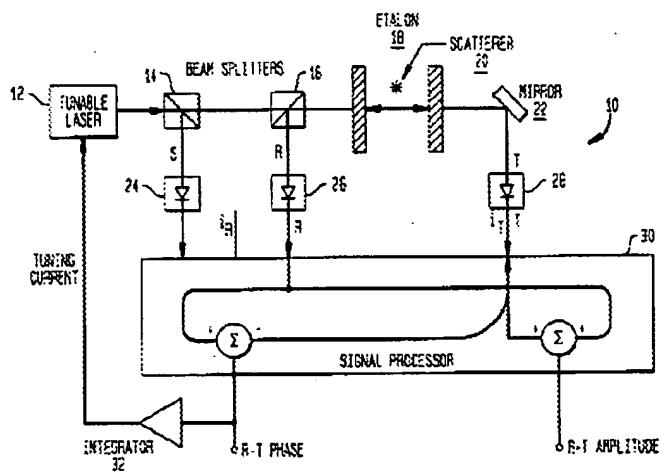
**DETAILED ACTION*****Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 6-7, 12, and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by DeCain et al (6,259,712).**



Regarding claims 1, 7; and 17, DeCain (Fig. 1) discloses a method and corresponding apparatus for monitoring a laser signal comprising an etalon 18 that receives an input signal from laser 12, a detector 28 for detecting light transmitted through the etalon, detector 26 that receives light reflected from the etalon, and a signal processor 30 that calculates a ratio from the detected light both transmitted through the etalon and reflected by the etalon.

As for claims 6 and 12, the etalon 18 is a Fabry-Perot.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2-5, 8-11, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeCain et al (6,259,712) in view of Lee et al (6,885,462).**

As for claims 2-3, 8-9, and 18-19, DeCain discloses the use of ratios in comparing the detected signals for monitoring the laser, however, DeCain discloses that the voltages output by the processor are related to the ratio of the sum and the difference of the reflected and the transmitted beams in relation to the sample beam.

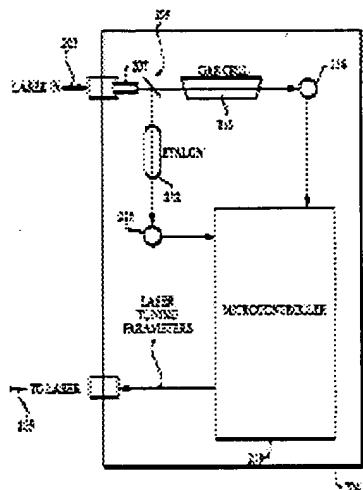
Lee, however, discloses a wavelength monitoring device that contains a detector for detecting the light beam reflected by an etalon and a detector for detecting the light beam transmitted by the etalon, wherein “a wavelength drift of the first incident beam is determined by dividing the transmitted beam by the reflected beam” (claim 2). A simple inversion of this will provide for the ratio of the reflected beam by the transmitted beam.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the ratio calculation of Lee to the signal processor of DeCain, the motivation being that it would allow for wavelength monitoring via a processor already equipped for ratio measurements through the use of only the signals from the etalon.

As for claims 4-5 and 10-11, while DeCain and Lee fail to disclose the explicit equations claimed, Official Notice is taken as to the fact that the equation for measuring reflectance and

transmission of an etalon is well known, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use such an equation when calculating the ratio of the reflected versus transmitted signal from the etalon, the motivation being that using the known equations will provide accurate, reliable results.

**Claims 13-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeCain et al (6,259,712) in view of May (6,714,309).**



As for claims 13-14 and 20, DeCain discloses the detection of the sample beam at detector 24 that serves as a reference. This sample beam, however, is unaltered; it does not pass through a reference device that receives the signal prior to detection.

May, however, (Fig. 3) discloses a device where part of a laser input beam is passed through a gas cell 210 to detector 214 while the other part of the laser beam travels to etalon 212. The gas cell is used as a reference, as it "contains gas having a known absorption spectrum with numerous absorption lines" (Col. 8, lines 53-54).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add a reference gas cell to the device of DeCain as per May rather

than the unaltered sample beam, the motivation being that the gas cell will provide a known, more accurate reference signal for comparison with the detected reflected and transmitted signals from the etalon.

**Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeCain et al (6,259,712) in view of May (6,714,309) and in further view of Lee et al (6,885,462).**

As for claims 15-16, the combined device of DeCain and May discloses the use of ratios in comparing the detected signals for monitoring the laser, however, DeCain discloses that the voltages output by the processor are related to the ratio of the sum and the difference of the reflected and the transmitted beams in relation to the sample beam.

Lee, however, discloses a wavelength monitoring device that contains a detector for detecting the light beam reflected by an etalon and a detector for detecting the light beam transmitted by the etalon, wherein “a wavelength drift of the first incident beam is determined by dividing the transmitted beam by the reflected beam” (claim 2). A simple inversion of this will provide for the ratio of the reflected beam by the transmitted beam.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the ratio calculation of Lee to the signal processor of DeCain, the motivation being that it would allow for wavelength monitoring via a processor already equipped for ratio measurements through the use of only the signals from the etalon.

### ***Conclusion***

Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known

statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. *In re Selmi*, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); *In re Fischer*, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well known statement was made.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2877

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAL  
August 5, 2005



HWA (ANDREW) LEE  
PRIMARY EXAMINER